

AMENDMENTS TO THE CLAIMS

The application was inadvertently filed originally without a claim 36. In Paper No. 5, dated 2/5/2003, the Examiner renumbered claims 37-60 as claims 36-59, respectively. Along with the other amendments, the claims have been amended below to conform their dependencies in accordance with this renumbering.

1 (Currently amended). An optical filter comprising:
at least three retarders, the at least three retarders causing optical rotation to light of a first spectrum substantially without introducing composite retardation.

2 (Original). The filter of claim 1, wherein the at least three retarders are isotropic to light of a second spectrum.

3 (Original). The filter of claim 2, further comprising:
a bias retarder,
wherein the bias retarder and the at least three retarders have about a half wave of retardation.

4 (Original). The filter of claim 3, wherein the filter is an achromatic half wave retarder in the first spectrum and in the second spectrum.

5 (Original). The filter of claim 3, wherein the filter has a substantially wavelength stable eigenpolarization.

6 (Original). The filter of claim 1, wherein the optical rotation is a 90° optical rotation.

7 (Original). The filter of claim 1, wherein the optical rotation of the at least three retarders is achromatic in the first spectrum.

8 (Original). The filter of claim 1, wherein the at least three retarders have a substantially wavelength stable eigenpolarization.

9 (Original). The filter of claim 1, further comprising a first beam splitter in optical series with the at least three retarders.

10 (Original). The filter of claim 9, wherein the first beam splitter is a polarizing beam splitter.

11 (Original). The filter of claim 9, wherein the first beam splitter is a dichroic beam splitter.

12 (Original). The filter of claim 9, wherein the first beam splitter is a partially metallized mirror beam splitter.

13 (Original). The filter of claim 9, further comprising a second beam splitter in optical series with the at least three retarders and the first beam splitter.

14 (Original). The filter of claim 1, further comprising:

a first beam splitter and a second beam splitter,

wherein the at least three retarders are between the first beam splitter and the second beam splitter; and

wherein skew light ray polarization effects of the first beam splitter are offset by skew light ray polarization effects of the at least three retarders and the second beam splitter.

15 (Original). The filter of claim 14, wherein the first beam splitter and the second beam splitter have a common normal vector.

16 (Original). The filter of claim 1, wherein the at least three retarders further includes a bias retarder to make a retardation of the at least three retarders have substantially no retardation.

Claims 17 - 31 (Withdrawn)

Claim 32 (Canceled)

33 (Currently amended). ~~The method of claim 32, An optical filtering method, the method comprising:~~

optically rotating light of a first spectrum without introducing composite retardation,
wherein the optically rotating is performed by three or more retarders.

34 (Original). The method of claim 33, wherein the three or more retarders are achromatic in the first spectrum.

35 (Original). The method of claim 33, wherein the three or more retarders have a substantially wavelength stable eigenpolarization.

36 (Original). The method of claim 33, further comprising separating light into two different paths.

37 (Currently amended). The method of claim 37-36, wherein the separating is according to polarization.

38 (Currently amended). The method of claim 37-36, wherein the separating is according to light wavelength.

39 (Currently amended). ~~The method of claim 32, further comprising: An optical filtering method, the method comprising:~~

a first separating of light into two different paths;
a second separating of light into two different paths; and
optically rotating light of a first spectrum without introducing composite retardation,
wherein the optically rotating occurs after the first separating but before the second separating such the optical rotating is substantially independent of skew ray direction.

40 (Currently amended). ~~The method of claim 32, further comprising An optical filtering method, the method comprising:~~

~~optically rotating light of a first spectrum without introducing composite retardation; and transmitting light of a second spectrum unaltered.~~

41 (Currently amended). The method of claim 32 ~~33~~, wherein the optical rotating is a 90° optical rotation.

Claims 42 - 49 (Withdrawn)

Claims 50 - 53 (Canceled)

54 (Original). An optical arrangement comprising:

a planar polarizer;

a beam splitter; and

an out-of-plane retarder between the planar polarizer and the beam splitter.

55 (Currently amended). The arrangement of claim 55 ~~54~~, wherein the out-of-plane retarder is a color selective polarizing filter.

56 (Currently amended). The arrangement of claim 55 ~~54~~, wherein the planar polarizer has a transmission axis parallel or perpendicular to a plane containing an optic axis of the out-of-plane retarder.

57 (Currently amended). The arrangement of claim 55 ~~54~~, wherein the beam splitter is a polarizing beam splitter.

58 (Currently amended). A method of filtering light, the steps of the method comprising: polarizing an incident light beam to ~~form~~ form a polarized light beam; retarding the polarized light beam with an out-of-plane retarder to form a retarded light beam; and splitting the retarded light beam.

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59 (Currently amended). The method of claim 59 58, wherein the out-of-plane retarder is a color selective polarizing filter.